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Robert H. Scheer

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EXAMINER

CUFF, MICHAEL A

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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.



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**BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES**

Application Number: 09/867,200  
Filing Date: May 29, 2001  
Appellant(s): SCHEER, ROBERT H.

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Gary R. Jarosik  
For Appellant

**EXAMINER'S ANSWER**

This is in response to the appeal brief filed 12/18/2007 appealing from the Office action mailed 7/31/2007.

**(1) Real Party in Interest**

A statement identifying by name the real party in interest is contained in the brief.

**(2) Related Appeals and Interferences**

The following are the related appeals, interferences, and judicial proceedings known to the examiner which may be related to, directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal:

Appellant has cited a Board decision on application 09/867,301. The decision is known to the examiner only in that the examiner has read appellant's brief. The examiner does not believe that the claimed subject matter of the 09/867,301 is similar enough to the current application to be considered relevant. Further, There is no prior art being applied in common in the two applications. The inventor is common to the applications.

**(3) Status of Claims**

The statement of the status of claims contained in the brief is correct.

**(4) Status of Amendments After Final**

The appellant's statement of the status of amendments after final rejection contained in the brief is correct.

**(5) Summary of Claimed Subject Matter**

The summary of claimed subject matter contained in the brief is correct.

**(6) Grounds of Rejection to be Reviewed on Appeal**

The appellant's statement of the grounds of rejection to be reviewed on appeal is correct.

**(7) Claims Appendix**

The copy of the appealed claims contained in the Appendix to the brief is correct.

**(8) Evidence Relied Upon**

5,608,621	Caveney	3-1997
6,535,773	Tsukishima	3-2003

**(9) Grounds of Rejection**

The following ground(s) of rejection are applicable to the appealed claims:

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains.

Patentability shall not be negated by the manner in which the invention was made.

Claims 4-9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Caveney in view of Tsukishima et al.

Caveney et al. shows, figure 12, (from column 3) a computer system and method for controlling the number of units of each of a plurality of different parts in an inventory. In a preferred embodiment, the computer system comprises a memory which stores a part data table for each part, an input device which receives a selected inventory

investment constraint, a processor which retrieves the part data table for each part and determines a minimum unit replenishment quantity (part of the reorder point equation, replenishment method) and a safety unit quantity (base stock level) for each part, and an output device which outputs the minimum unit replenishment quantity and the safety unit quantity for each part. The part data table (the curves in figure 12 are derived from the part data table, the common slope or critical ratio is determined by using these curves and thus also using the forecast of demand) for each part comprises the number of units of the part in the inventory, a forecast unit demand for the part, the cost of the part, a historical average ratio of units per order for the part, and an average number of units of the part expected to be in the inventory for each of a plurality of expected part service levels for the part. In order to determine the minimum unit replenishment quantity and the safety unit quantity for each part, the processor determines an expected number of fillable-from-stock orders and a slope (using critical stocking ratio for each part service level of each part. Each expected number of fillable-from-stock orders for each part is the product of the corresponding expected part service level and the ratio of the forecast unit demand for the part to the historical average ratio of units per order for the part. Each slope for each part is the ratio of the change in the corresponding expected number of fillable-from-stock orders for the part to the change in the ratio of the corresponding average number of units of the part expected to be in the inventory to the historical average ratio of units per order for the part. The processor further determines a slope, which is common to each part and for which the sum of the expected part investments for each of the parts is equal to the selected

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inventory investment constraint. Still further, the processor determines the minimum unit replenishment quantity and the safety unit quantity for each part, which can effect the expected part service level for each part corresponding to the determined common slope.

Caveney fails to explicitly disclose the use of the inventory management system over a plurality of distribution points in the supply chain.

Tsukishima et al. teaches, column 7, lines 41-67 and figure 2, a part-based expansion arithmetic unit 34 designed to arithmetically determine inventory allotment (shares apportioned), lot arrangement, and lead time as parts of the MRP procedure in order to optimize the supply chain.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Caveney with inventory allotment method over a plurality of distribution points as taught by Tsukishima et al. in order to optimize the supply chain.

#### **(10) Response to Argument**

A claim map has been provided for independent claim 4 to clarify the examiner's position.

## Claim Map for 09/867,200

### Claim 4

A computer-readable media having computer-executable instructions for managing inventory within a supply chain having a plurality of distribution points, the instructions performing steps comprising:

providing for each of a plurality of items distributed within the supply chain a forecast of demand over a forecast period;

using the forecast of demand for each of the plurality of items to establish for each of the plurality of items a critical stocking ratio which indicates a total quantity of each of the plurality of items which can be held in inventory over the forecast period;

using the critical stocking ratio for each of the plurality of items to apportion the total quantity of each of the plurality of items which can be held in inventory over the forecast period in shares to the plurality of distribution points in the supply chain by assigning over the forecast period a base stock level for each of the plurality of items at each of the plurality of distribution points in the supply chain and a reorder point for each of the plurality of items at each of the plurality of distribution points in the supply chain;

Caveney shows a forecasting module 512, figure 5, provides forecast unit demand (FUD). Column 3, line 12, shows that the invention is use for a plurality of different parts.

Caveney shows, figure 12 and column 8, the development of a "common slope", which represents a balance between inventory service level and investment. In column 8, equations 13, 16 and 18 show the use of the forecast or FUD in the development of the slope. The examiner is considering the "common slope" to meet the metes bounds of a "critical stocking ratio".

Caveney shows, column 3, lines 26-30, determining the minimum unit replenishment quantity (total quantity is also shown, see inventory service level) and safety unit quantity for each part.

Tsukishima teaches, column 7, lines 41-67, and figure 2, a part-based expansion arithmetic unit 34 designed to arithmetically determine inventory allotment (apportion the total quantity), lot arrangement, and lead time as parts of the MRP procedure.

determining a replenishment method for each of the plurality of items at each of the plurality of distribution points in supply chain; and

executing the replenishment method to create orders for items at any of the plurality of distribution points in the supply chain that fail to have a base stock level for any of the plurality of items thereby causing inventory within the supply chain to be managed in accordance with the critical stocking ratio.

See above for determining and executing steps.

Examiner's note: The prior meets the very broad language of "using the critical stocking ratio" and "in accordance with the critical stocking ratio" because, by determining the total amount of inventory based on the common slope, any distribution of the total "uses" or is "in accordance with" the common slope. This is not an unreasonable interpretation, especially when appellant's disclosure "uses" the critical stocking ratio (CSR) to determine the total amount of inventory and "uses" the CSR in apportionment merely by an apportionment cannot exceed the total amount. See appellant's paragraphs 177 and 202-208.



**Response to Argument (continued)**

Page 5 of appellant's brief asserts that the inventory allotment generally alluded to in Tsukishima, column 7, lines 41-67, is nothing more than a process for allotting items to one of a plurality of processors. The examiner does not concur. Appellant is using a mistaken interpretation of what Tsukishima shows as a basis for their argument. Tsukishima determines inventory allotment of parts as part of an MRP system. The computers used to calculate the inventory allotment is a parallel computer with distributed memory and a plurality of processor elements or (PE). For evidence of the examiner's position see the title of the patent, the abstract and the originally cited column 7, lines 41-67.

Page 6 of appellant's brief asserts that Tsukishima fails to have any relevance to using a critical stocking ration (CSR) for each of a plurality of items to apportion the total quantity of each of the plurality of items. The examiner does not concur. The relevance to the claim language is that Caveney used a CSR to derive a total amount of inventory and Tsukishima teaches distributing the total amount of inventory into allotments.

Page 7 of appellant's brief questions why the examiner, during prosecution, recited appellant's own application, specifically paragraphs 177 and 202-208. The examiner cited appellant's own application to show how close the prior art and the invention are. For example, Caveney uses a CSR to determine the total amount of inventory. Further, Tsukishima teaches taking a total amount of inventory and allocating the inventory. Looking at appellant's written description supporting the extremely broad

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language of “using” a claimed element allow the examiner to apply prior similar to the written description and therefore also meet the broad “using” limitation.

**(11) Related Proceeding(s) Appendix**

Copies of the court or Board decision(s) identified in the Related Appeals and Interferences section of this examiner’s answer are provided herein.

For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,

/Michael Cuff/

Primary Examiner, Art Unit 3627

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